

### **ABSTRACT OF THE DISCLOSURE**

A small form factor optical transceiver module is provided that includes a housing within which are disposed an optical transmitter and an optical receiver. A controller IC is also disposed in the housing and includes a serial digital interface configured to facilitate communication between the controller IC and a host. Among other things, the serial digital interface enables access to onboard digital diagnostics while substantially conforming with the standardized packaging, footprint, and form factor of a standardized optical transceiver module. Further, the use of memory map locations in the controller IC enables the implementation of various types of host accessible diagnostic and other functionalities in the optical transceiver module.